

## REMARKS

### **I. Claim Rejections - 35 USC §102 SD**

To anticipate a claim, a prior art reference must disclose every limitation of the claimed invention, either explicitly or inherently. *See Glaxo Inc. v. Novopharm Ltd.*, 52 F.3d 1043, 1047, 34 U.S.P.Q.2D (BNA) 1565, 1567 (Fed. Cir. 1995). Neither Reelee, Squibbs, nor Nagamine disclose every limitation of the pending claims, as amended.

#### **A. Reelee**

The Examiner has rejected claim 18 under 35 USC § 102(b) as being anticipated by Reelee. In order to anticipate a claim, a reference must disclose each and every limitation of a claim. Claim 18, as amended, recites:

A camera comprising:

optics;

an image storage medium; and

a cellular transceiver operable to send and receive signals from nearby cellular towers,

wherein the cellular transceiver is operable to use at least one cellular control channel to determine the location of the camera.

Reelee does not teach or disclose the claim 18 limitation that "the cellular transceiver is operable to use at least one cellular control channel to determine the location of the camera."

In fact, Reelee does not even teach any location detection. Reelee simply teaches "an image capture system that is capable of transmitting electronic image data using conventional cellular telephone transmission technology" (Col. 1; ll. 56-59). Furthermore, as will be discussed below, none of the other cited references disclose or teach the claim 18 limitation that "the cellular transceiver is operable to use at least one cellular control channel to determine the location of the camera." Therefore, claim 18 is not anticipated, as amended, and is in condition for allowance.

The control channel is typically under-utilized in comparison to the data channels, and using the under-utilized control channel frees up the data or communication channels and increases the voice throughput. This advantageous technique is not disclosed in the prior art. The control channel is normally used by the GSM, PACS, FDMA, CDMA, or TDMA network to verify the caller's identification and billing information, and for switching the caller between communication towers. This usage is limited, and using the control channel in the claimed fashion takes advantage of this unutilized capacity (18).

Note that the use of a control channel was claimed previously in dependent claims 29, 43, 51 and 52. Thus, a new search is not warranted.

Claims 2-17 depend from claim 18 and are novel for all of the reasons above relating to claim 18. Furthermore, these dependent claims have additional novel limitations.

Reele does not teach or disclose the claim 13 limitation "...wherein the location is determined for each image recorded."

Reele does not teach or disclose the claim 14 limitation "...wherein the location is determined for a series of images."

Reele does not teach or disclose the claim 15 limitation "...wherein the location information comprises geographic coordinates."

Reele does not teach or disclose the claim 16 limitation "...wherein the location information comprises the name of the city, state, country, province, or locale where the image was taken."

Reele does not teach or disclose the claim 17 limitation "...wherein the camera further comprises a global positioning system."

Therefore, Reece cannot anticipate claims 2-18, and claims 2-18 are thus in condition for allowance.

B. Squibbs

The Examiner has rejected claims 2-18, 20-40, 42-45 and 47-52 under 35 USC § 102(e) as being anticipated by Squibbs.

As discussed above, independent claim 18, as amended, recites that “the cellular transceiver is operable to use at least one cellular control channel to determine the location of the camera.” Neither Squibbs, nor any of the cited references, teach or disclose such a limitation. Therefore, claim 18 is novel over Squibbs and the other cited references and thus is in condition for allowance.

Dependent claims 2-17 depend from claim 18 and are novel over Squibbs for all the reasons discussed above.

Independent claim 24 recites:

A method for determining and recording the location of an image comprising:

capturing and recording the image on a storage medium with a camera;

determining the location where the image was captured with said camera,

wherein determining the location comprises triangulating the location of the camera via a cellular transceiver; and

recording the location where the image was captured on the storage medium, such that the image and the location are correlated.

Squibbs and the other cited references fail to teach or disclose the claim 24 limitation that “determining the location comprises triangulating the location of the camera via a cellular transceiver.” While Squibbs may disclose receiving location data from a mobile entity (page 5, 0097; FIG. 10), Squibbs never discusses “triangulating the location.” In Squibbs, the

cellular-radio based mobile device [is] capable of effecting location discovery such as by requesting location data from a location server” (page 6, 0108; page 5, 0098). This is very different than the process of “triangulating the location of the camera via a cellular transceiver,” as required by claim 24.

Claims 20-23 and 25-37 that depend from claim 24 are novel for all of the reasons above relating to claim 24. Furthermore, these dependent claims have additional novel limitations.

Squibbs fails to teach or disclose the claim 23 limitation “...wherein determining the location further comprises communicating with global positioning satellites via a global positioning receiver.”

Squibbs fails to teach or disclose the claim 25 limitation “...wherein triangulating the location of the camera comprises analyzing a signal strength of a communication signal between a cell site antenna and the cellular transceiver.”

Therefore, claims 20-37 that depend from claim 24 are novel for all of the reasons above.

Independent claim 34, as amended, recites

A camera for capturing an image comprising:

optical lens means for capturing an optical image;

means for recording the optical image onto a storage medium;

means for determining the location where the optical image was captured with cellular signals including at least one signal received from cellular towers over a cellular control channel; and

means for recording the location onto the storage medium.

Squibbs, and the other cited references fail to teach or disclose the claim 34 limitation of “means for determining the location where the optical image was captured with cellular

signals including at least one signal received from cellular towers over a cellular control channel.”

The control channel is typically under-utilized in comparison to the data channels, and using the under-utilized control channel frees up the data or communication channels and increases the voice throughput. This advantageous technique is not disclosed in the prior art. The control channel is normally used by the GSM, PACS, FDMA, CDMA, or TDMA network to verify the caller’s identification and billing information, and for switching the caller between communication towers. This usage is limited, and using the control channel in the claimed fashion takes advantage of this unutilized capacity (18).

Therefore, independent claim 34 is now in condition for allowance. Claims 35-40 that depend from claim 34 are novel for all of the reasons above relating to claim 34.

Independent claim 42 recites:

A camera comprising:

an optical lens for focusing an image onto a focal plane;

a storage medium for recording the image, the medium comprising film or memory cells; and

a location sensing system, the system configured to record the location onto the storage medium, wherein the location sensing system comprises a cellular transceiver, the system configured to triangulate the position of the camera through signals sent and/or received by the transceiver.

Squibbs and the other cited references fail to teach or disclose the claim 42 limitation of “the system configured to triangulate the position of the camera through signals sent and/or received by the transceiver.” As discussed above with regards to independent claim 24, Squibbs, and the other cited references, fail to teach or disclose triangulation. While Squibbs may disclose receiving location data from a mobile entity (0097), it never teaches a “system configured to triangulate the position of the camera through signals sent and/or received by the transceiver.” In Squibbs, “the cellular-radio based mobile device [is] capable of effecting

location discovery such as by requesting location data from a location server” (page 6, 0108; page 5, 0098). This is very different from the system of claim 42, as discussed above.

Therefore, independent claim 42 is now in condition for allowance. Claims 43-52 that depend from claim 42 are novel for all of the reasons above relating to claim 42.

Furthermore, these dependent claims have additional novel limitations.

Squibbs does not teach or disclose the claim 49 limitation “wherein triangulating comprises measuring the signal strengths of control and voice channels of nearby cells.”

Squibbs does not teach or disclose the claim 51 limitation “wherein one or more of the signals is sent over a dedicated physical control channel.”

Squibbs does not teach or disclose the claim 52 limitation “wherein the short message service of a control channel is utilized in determining the location.”

C. Nagamine

The Examiner has also rejected claims 13-16, 18, 21, 24-40, 42, 43, 45, 47 and 49-52 under 35 USC §102(e) as being anticipated by Nagamine.

Claim 18, as amended, recites “the cellular transceiver is operable to use at least one cellular control channel to determine the location of the camera.”

Nagamine does not disclose or teach the claim 18 limitation that “the cellular transceiver is operable to use at least one cellular control channel to determine the location of the camera.” Therefore, claim 18 is not anticipated, as amended, and is in condition for allowance.

The control channel is typically under-utilized in comparison to the data channels, and using the under-utilized control channel frees up the data or communication channels and increases the voice throughput. This advantageous technique is not disclosed in the prior art.

The control channel is normally used by the GSM, PACS, FDMA, CDMA, or TDMA network to verify the caller's identification and billing information, and for switching the caller between communication towers. This usage is limited, and using the control channel in the claimed fashion takes advantage of this unutilized capacity (18).

Note that the use of a control channel was claimed previously in dependent claims 29, 43, 51, and 52. Thus, a new search is not warranted.

Claims 2-17 depend from claim 18 and are novel for all of the reasons above relating to claim 18. Furthermore, these dependent claims have additional novel limitations.

Nagamine does not teach or disclose the claim 3 limitation "wherein the exposure information comprises, the aperture setting, the shutter speed, the film speed."

Nagamine does not teach or disclose the claim 7 limitation "wherein the exposure information further comprises metering information such as aperture priority, shutter priority, or under or over exposure settings of +/- f stops."

Nagamine does not teach or disclose the claim 10 limitation "wherein the storage medium is an optical disk."

Nagamine does not teach or disclose the claim 11 limitation "wherein the solid state memory is contained in a removable memory card."

Nagamine does not teach or disclose the claim 15 limitation "wherein the location information comprises geographic coordinates."

Nagamine does not teach or disclose the claim 17 limitation "wherein the camera further comprises a global positioning system."

Therefore, Nagamine cannot anticipate claims 2-18.

Independent claim 24 recites:

A method for determining and recording the location of an image comprising:

capturing and recording the image on a storage medium with a camera;

determining the location where the image was captured with said camera,

wherein determining the location comprises triangulating the location of the camera via a cellular transceiver; and

recording the location where the image was captured on the storage medium, such that the image and the location are correlated.

Nagamine, and the other cited references, fail to teach or disclose the claim 24 limitation that “determining the location comprises triangulating the location of the camera via a cellular transceiver.” Nagamine never discusses “triangulating the location.” In Nagamine, the identification of a base station is used to determine the location of the camera (Col. 1, ll. 48-51; Abstract). This is very different than the process of “triangulating the location of the camera via a cellular transceiver,” as required by claim 24.

Claims 20-23 and 25-37 that depend from claim 24 are novel for all of the reasons above relating to claim 24. Furthermore, the dependent claims have additional novel limitations.

Nagamine does not teach or disclose the claim 24 limitation of “manipulating the images and locations into a travel log.”

Nagamine does not teach or disclose the claim 23 limitation “wherein determining the location further comprises communicating with global positioning satellites via a global positioning receiver.

Nagamine does not teach or disclose the claim 25 limitation “wherein triangulating the location of the camera comprises analyzing a signal strength of a communication signal between a cell site antenna and the cellular transceiver.”



Nagamine does not teach or disclose the claim 29 limitation “ wherein triangulating the location of the camera comprises usage of a cellular control channel.”

Nagamine does not teach or disclose the claim 31 limitation of “recording exposure information for each image recorded.”

Nagamine does not teach or disclose the claim 32 limitation “wherein determining the location comprises determining the geographic coordinates of the location.”

Independent claim 34, as amended, recites

A camera for capturing an image comprising:

optical lens means for capturing an optical image;

means for recording the optical image onto a storage medium;

means for determining the location where the optical image was captured with cellular signals including at least one signal received from cellular towers over a cellular control channel; and

means for recording the location onto the storage medium.

Nagamine, and the other cited references fail to teach or disclose the claim 34 limitation of “means for determining the location where the optical image was captured with cellular signals including at least one signal received from cellular towers over a cellular control channel.”

The control channel is typically under-utilized in comparison to the data channels, and using the under-utilized control channel frees up the data or communication channels and increases the voice throughput. This advantageous technique is not disclosed in the prior art. The control channel is normally used by the GSM, PACS, FDMA, CDMA, or TDMA network to verify the caller's identification and billing information, and for switching the caller between communication towers. This usage is limited, and using the control channel in the claimed fashion takes advantage of this unutilized capacity (18).

Therefore, independent claim 34 is now in condition for allowance. Claims 35-40 that depend from claim 34 are novel for all of the reasons above relating to claim 34. Furthermore, these dependent claims have additional novel limitations.

Nagamine does not teach or disclose the claim 36 limitation “wherein the means for determining the location comprises a GPS receiver that determines the position of the camera when the image is captured.”

Nagamine does not teach or disclose the claim 37 limitation “wherein the means for determining the location comprises a cellular transceiver that triangulates the position of the camera when the image is captured.”

Independent claim 42 recites:

A camera comprising:

an optical lens for focusing an image onto a focal plane;

a storage medium for recording the image, the medium comprising film or memory cells; and

a location sensing system, the system configured to record the location onto the storage medium, wherein the location sensing system comprises a cellular transceiver, the system configured to triangulate the position of the camera through signals sent and/or received by the transceiver.

Nagamine fails to teach the limitations of these independent claims, and the claims that depend therefrom. Nowhere does Nagamine teach “the location sensing system comprises a cellular transceiver, the system configured to triangulate the position of the camera through signals sent and/or received by the transceiver.” as required by claim 42. As discussed above with regards to independent claim 24, Squibbs, and the other cited references, fail to teach or disclose triangulation.

Therefore, independent claim 42 is now in condition for allowance. Claims 43-52 that depend from claim 42 are novel for all of the reasons above relating to claim 42. Furthermore, these dependent claims have additional novel limitations.

Nagamine does not teach or disclose the claim 49 limitation "wherein triangulating comprises measuring the signal strengths of control and voice channels of nearby cells."

Nagamine does not teach or disclose the claim 51 limitation "wherein one or more of the signals is sent over a dedicated physical control channel."

Nagamine does not teach or disclose the claim 52 limitation "wherein the short message service of a control channel is utilized in determining the location."

## **II. Claim Rejections - 35 USC §103**

To establish a prima facie case of obviousness, three basic criteria must be met.

First, there must be some suggestion or motivation to modify the reference or to combine reference teachings.

Second, there must be a reasonable expectation of success.

Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. In re Vaack, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985).

Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor. *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1551, 1553, 220 U.S.P.Q. (BNA) 303, 311, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

The Examiner has rejected claims 2-18, 20-40, 42-45 and 47-52 under 35 USC § 103 as being obvious over Reece in view of Honda.

Independent claim 18, as amended, recites:

A camera comprising:

optics;

an image storage medium; and

a cellular transceiver operable to send and receive signals from nearby cellular towers,

wherein the cellular transceiver is operable to use at least one cellular control channel to determine the location of the camera.

Independent claim 24 recites:

A method for determining and recording the location of an image comprising:

capturing and recording the image on a storage medium with a camera;

determining the location where the image was captured with said camera,

wherein determining the location comprises triangulating the location of the camera via a cellular transceiver; and

recording the location where the image was captured on the storage medium, such that the image and the location are correlated.

Independent claim 34, as amended, recites

A camera for capturing an image comprising:

optical lens means for capturing an optical image;

means for recording the optical image onto a storage medium;

means for determining the location where the optical image was captured with cellular signals including at least one signal received from cellular towers over a cellular control channel; and

means for recording the location onto the storage medium.

Independent claim 42 recites:

A camera comprising:

an optical lens for focusing an image onto a focal plane;

a storage medium for recording the image, the medium comprising film or memory cells; and

a location sensing system, the system configured to record the location onto the storage medium, wherein the location sensing system comprises a cellular transceiver, the system configured to triangulate the position of the camera through signals sent and/or received by the transceiver.

The Examiner stated that Honda does not appear to meet the above claim limitations, but that "It would have been obvious to one skilled in the art at the time of applicant's invention to modify Honda et. al to have a complete cellular phone integrated with the camera instead of just the cellular phone receiver. One would have been motivated to so modify Honda et. al in order to permit transmitting the captured images via the cellular phone." It is kindly asserted that it would not have been obvious to one skilled in the art, and that furthermore, the Examiner has failed to make a prima facie case of obviousness by simply stating it would have been obvious without providing any support for his claim.

In fact, the Examiner appears to be using impermissible hindsight. Nowhere has the Examiner pointed out any motivation, *within any of the references*, to combine the teachings of the two references to arrive at any of the independent or dependent claims of the application. The Examiner has simply made conclusory assertions that the claims are obvious without any support. Furthermore, the Examiner appears to have mistaken the claimed invention, in order to support his impermissible application of hindsight. The Examiner stated

that “[o]ne would have been motivated to so modify Honda et. al *in order to permit transmitting the captured images via the cellular phone.*” However, at the present, the claims nowhere recite *transmitting the captured images* via the cellular transceiver or any other means.

It is kindly asserted that claims 2-18, 20-40, 42-45 and 47-52 are not obvious in light of the cited art, that the Examiner has failed to make a prima facie case, and that these claims are allowable.

The Examiner has rejected claims 2-18, 20-40, 42-45 and 47-52 under 35 USC § 103 as being obvious in the acknowledged prior art in view of Nagamine et al, and has acknowledged that the prior art fails to disclose the claim limitations. In particular, the Examiner has stated that the acknowledged prior art required manual input of location information but that “It would have been obvious to one of ordinary skill in the art at the time of applicant’s invention to add a cellular telephone transceiver to the acknowledged prior art in order to provide the location information of where the photograph is taken. One would have been motivated to so modify the acknowledged prior art in order to eliminate the very tedious operation of the conventional means for manually inputting location.” Again, the Examiner has failed to make a prima facie case of obviousness, and has simply provided conclusory statements without any support. Nowhere has the Examiner pointed out any motivation to combine the references. Nor has the Examiner pointed out how one would expect to arrive at the claimed invention even if the references were combined.

Therefore, it is kindly asserted that these claims are in condition for allowance, and allowance of these claims is requested.

As pointed out in the previous response, Suzuki, Honda, Watanabe, Miyake, and Kimura do not disclose or teach each and every element of the pending claims.

It is believed that the present application is now in condition for allowance, and an earlier indication of its allowance is earnestly solicited.

Respectfully submitted,

P. Mikhail 1/5/03  
Peter G. Mikhail Date

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